



Mica Powders, or Pearl Essence Pigments: The Safe Alternative to Bronzing Powders

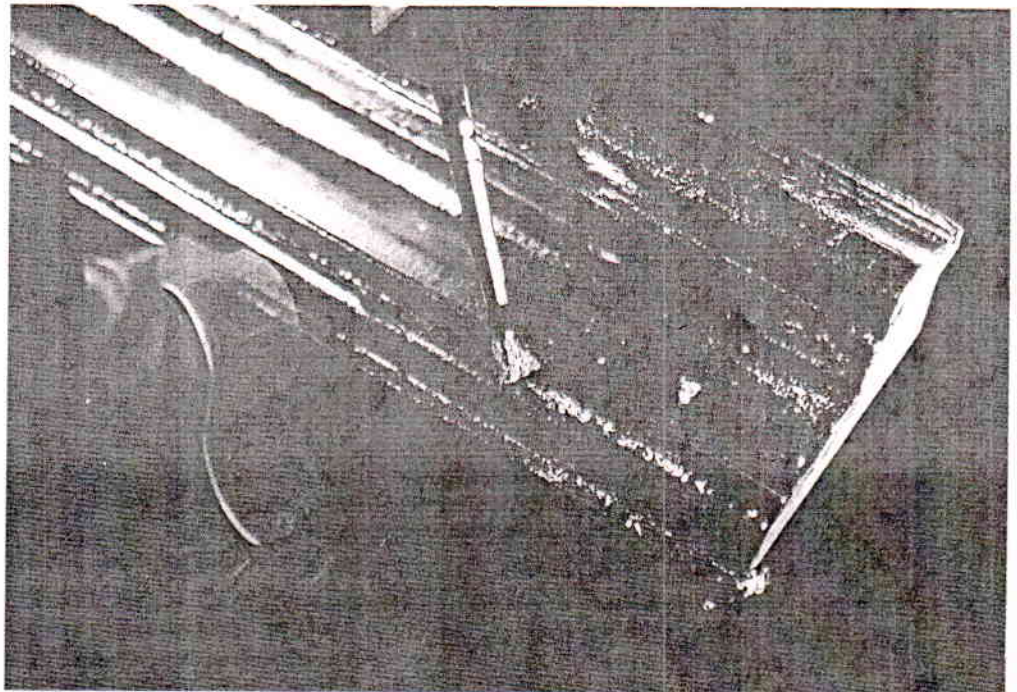
by John Sansbury

The metallic luster and rarity of the pearl are legendary. It was in the Seventeenth century when a French rosary maker first observed the lustrous, silky flow patterns in water in which bleak, a type of small fish, had been washed. He found that when he applied these small elongated hexagon patterns to alabaster, wax, or glass, it imparted the appearance of pearl. This is the origin of natural pearl essence.

In the Eighteenth century, French manufacturers used pearl essence in a vehicle containing fish glue. But it wasn't until the Twentieth century, with the development of nitrocellulose lacquers and celluloid, that the utilization of pearl essence became an industry.

Today, we use the pigments for such things as a pearl finish for leather, on statuettes, and for custom automobile paint finishes. The cosmetic industry found a great product in frosted nail enamels, make-up powder, and eye liner. You have probably all seen its use in the framing industry—the mica enamels applied to metal section frames and Titanium Dioxide coated mica added to absorption colorants to create a gold seen on many an imported wood moulding.

The most important new tool for finishers and gilders is the use of micas as a replacement for bronze powders. Nacreous powders such as Titanium Dioxide coated Mica and Ferric Oxide coated Mica powders offer the greatest range of color effects. They are non-toxic, en-



Mica powders are ideal for patching faults in gold leaf, as well as other gilding uses.

vironmentally safe, and also non-tarnishing.

Mica powders can be added safely to virtually any lacquer, varnish, shellac, or acrylic. Once properly mixed, they may be used like paint. They can also be used in their powdered form. The many mica colors can be mixed together to create various color tones. The density of the coverage is directly related to the amount used.

Mixing mica powders, regardless of your choice of medium, should be done as follows. The medium of choice should be placed in a small container. Small amounts of mica powder are added until it has been absorbed, creating a lump free heavy blend similar to heavy cream. You will now add this mixture to more of the same medium in a larger container. Stir this mixture, adding small

amounts at a time until you have reached the consistency best suited for your project.

The less material you add, the more transparent and light reflective it will be, and vice versa. For greater versatility, use an undercoat color to help in creating different looks and effects.

Flash gilding is another popular way to use mica powders. This technique employs the use of a tacky size over a base color, upon which small amounts of mica powder are brushed. This technique gives a brilliant metallic luster. Before the tack is gone you can also add additional colors to enhance, or give another dimension to, the work.

The combinations available are limited only to your imagination. The idea is to have fun, enjoying what you can create with this new tool.

Decorating with mica powders

Plus, Howard Zucker performs at Carnegie Hall!

by Howard Zucker

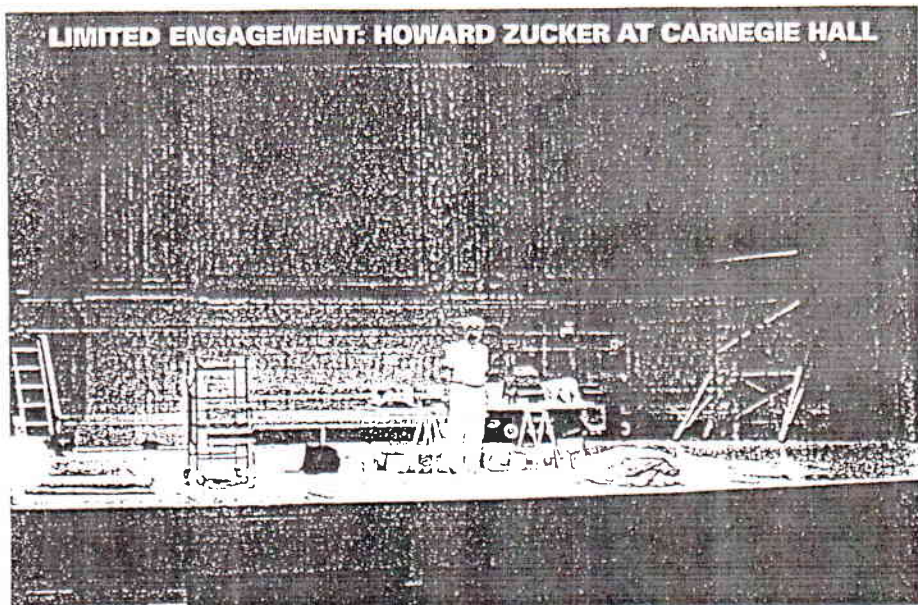
In 1948 I was part of the painting crew working at the Carnegie Mansion on Fifth Avenue and East 91st Street in New York. The building was then contributed to

existing glaze in order to find the base color. To establish the glazing color, we made full samples of the sections, not just dabs. The same glazing mixture will appear differ-

ent, depending on the texturing tool and the hands of the applicator. We used fine enamel rollers to achieve uniformity after applying the glaze generously with brushes and then experimented with different texturing tools.

Scissor-Jack Scaffolds were used on this job, though I would have preferred to use full scaffolding. Despite the higher equipment cost, pipe scaffolding would have allowed us to complete the job much faster. I refer to misguided efforts like these as "expensive frugality."

Mica powders proved useful in repairing damaged gilded areas — a welcome alternative to bronze powders. Mica is not a metal; it is a



No baton, but with brush in hand, Howard Zucker prepares for a day of decorating the Carnegie Hall stage.

Columbia University and became Columbia's School for Social Work. It is now the Cooper-Hewitt Museum, an affiliate of the Smithsonian.

This past summer I made my return to Carnegie — Carnegie Hall that is, where I was involved in the renewal and redecoration of the stage wall!

Assisted by District Council #9 Painters' Union members Anthony Regno, Hector Velasquez and Pat Wray, I orchestrated the repair and renewal of the glazed sections of the wall and touch-ups of the Dutch Metal on the ornamental plaster.

To redo the glazed wall sections, it was necessary to establish texture and shine. I used alcohol as a paint remover to rub off sections of the

ent, depending on the texturing tool and the hands of the applicator. We used fine enamel rollers to achieve uniformity after applying the glaze generously with brushes and then experimented with different texturing tools.

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The author's experience with gold leaf and metallic paints and powders was put to use in redecorating the renowned hall.



DECORATOR'S CORNER

binder that does not yellow with time, you can have a surface coating with a life span exceeding today's standards.

To create mica powders, the stone (mica) is ground. Mica cannot tarnish since it is not metal. It grows in a layered structure, like an onion, and has a mother of pearl translucency. This is what gives mica powder its fantastic reflective quality.

When these mica platelets are ground, they create a particle that is many faceted. Bronze powder, the metallic pigment of choice in the past, is basically a two-faceted flake of metal. Being metal, bronze powder has all of the oxidizing properties of bronze. These pigments are usually stable until the protective coatings are worn off or the metal content of the coating chemically reacts with the binder. Since mica is an inert rock it does not chemically react with any binder during or

after application.

When color matching is an issue, micas are helpful because they come in more than 35 colors: shades of gold, copper, silver, pewter, mother of pearl with red, blue or violet highlights and hornet blue/green. To achieve this, the mica powder is treated with titanium dioxide or ferrous oxide. This treatment does not make the powders chemically reactive in any way. As with all pigment, the size of the particle is important, and with some micas there is a choice between regular and micro (extra fine ground). An external mica is also available in some colors and this particle is larger than regular.

Micas can be mixed together for creativity and precision when matching and creating coatings. In the past, mixing your own metallic coatings was hazardous because airborne metallic powders are very toxic. There is no such hazard with mica

powder. The airborne particle is an inert rock instead of a flake of metal.

It is important to note that when touching up or color matching there will always be a significant difference between any gold pigment and leaves of metal. When light hits a piece of metal leaf, gold or other, the light is reflected off of a single reflecting plane. When light hits a gold pigmented surface the light is reflected off of many different reflecting surfaces. This makes metallic paints grainy when compared to metal leaf.

So why bother with metallic coatings if they're not good enough? Well, because sometimes we have to and we can. Micas mix easily by the brush stroke or by the batch for touch-ups. This can be more economical than releafing. The effects of graininess are not always visible from a distance. Touch-ups in pigments can be restricted to shadowed

or dark areas, allowing only the highlights to be releafed. Matte gilding can sometimes be grainier than a finely pigmented gold paint.

The advantage to mixing your own touch-up medium is that you can insure easy removal when the time comes for a complete overhaul. You should choose your binder accordingly. Should you get the big renovation job and it is to be done with conservation in mind, you will be glad you were the one caring for it previously. You will be able to remove old repairs with ease and without damaging the original gilding.

All surface coatings are a mixture of a binder and pigment, which means that mica is great for any type of surface coating. Micas can also be brushed onto a surface that has been coated with a binder rather than mixing the binder and pigment before application. This

makes for a more opaque and even surface. The pigment adheres to the surface of the binder. There is no need to seal this surface, though it is an option. The binders of choice for this technique are the traditional gilding size linseed oil or the modern water-based acrylic gilding sizes. These sizes can also be pigmented with tinting pastes.

Grace noted in the Fall 1992 issue of the Gilder's Tip, the Journal of the Society of Gilders, that "bronze powders have long been extinct in high-quality gilding because of their oxidizing qualities. In no time at all, they darken. Mica has rejuvenated the trade. Mica is used as a pigment and can be carried in a wide variety of mediums or brushed onto a sized surface. Holidays that appear while laying gold on a sized surface can be brushed with mica. While mica is transparent, it effectively covers the

holiday. Matching colors of gold or composition leaf seems to be no problem, as micas come in a wide variety of colors and can be mixed." **APC**

Howard Zucker is a graduate of New York University. His career has been marked by skillful decorative painting, organizing and running major painting and decorating projects, and teaching the trade to others. A life-long union member, Howard Zucker recently retired and has been teaching a union decorative painting course in New York, in addition to other trade pursuits

The columns of Decorator's Corner are now indexed from its inception, March 1979, through March 1997. For a copy, write Howard Zucker, 2611 Ocean Ave., Brooklyn, N.Y. 11229. Phone: 718-332-2106.
